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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,732	06/26/2003	Yoichiro Yamamoto	MTW-001	6511
959	7590	07/15/2004	EXAMINER	
LAHIVE & COCKFIELD, LLP. 28 STATE STREET BOSTON, MA 02109			WILLIAMS, THOMAS J	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/607,732

Applicant(s)

YAMAMOTO ET AL.

Examiner

Thomas J. Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7 and 9-13 is/are rejected.
- 7) ☒ Claim(s) 3 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Acknowledgment is made in the receipt of the election filed April 22, 2004.
2. Upon further review the election of species requirement is hereby withdrawn.

Specification

3. The disclosure is objected to because of the following informalities: page 26 line 17, reference character "120a" should be changed to "122a".

Pages 11 and 12 lines 24 and 20 respectively, the restricting means for restricting *axial* movement does not agree with the disclosure on page 23 lines 13-18.

Appropriate correction is required.

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

5. Claims 10-13 are objected to because of the following informalities: claims 10 and 12 recite that the restricting means restricts *axial* movement of the ringlike core member and the ringlike armature member. However, the disclosure states on page 23 lines 13-18 that the restricting means restricts radial displacement and allows axial displacement of the armature. Furthermore, the invention requires the armature to move in the axial direction. The applicant should clarify claims 10 and 12. For examination purposes the restricting means will act to restrict radial movement as stated in the disclosure. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 4, 5 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by US 3,180,469 to Wiedmann et al.

Re-claims 1 and 10, Wiedmann et al. discloses an electromagnetic brake and actuator, comprising: a multiplate brake mechanism 3 and 13; a ringlike core member 4 with an annular groove and first tapered surface; an annular coil 5 is disposed in the annular groove; a ringlike armature member 8 is arranged radially outside the core member (the armature is radially outside the tapered portion of the core) and has a second tapered surface that compliments the first tapered surface; a first annular restriction member (interpreted as the series of pins, column 1 lines 69-70, that are disposed in an annular configuration within the core, the examiner is broadly interpreting what is considered an annular restriction member since the applicant fails to disclose the specifics of the restriction member being claimed); a cylindrical pressure member is attached to the armature (the pressure member is interpreted by the examiner as being the brake surface of the armature).

The pins will prevent radial movement of the armature member and allow only axial movement of the armature, this is consistent with the instant invention.

Re-claim 4, an elastic means 6 is provided between the core member and the armature member.

Re-claim 5, an annular brake guide 12 has one end fixed to the core and the other end fixed to a part of the housing (element 14 forms part of a housing).

8. Claims 1, 2, 4-7 and 9-13 are rejected under 35 U.S.C. 102(b) as being anticipated by US 2,936,053 to Reucker.

Re-claims 1 and 10, Reucker discloses an electromagnetic brake and actuator, comprising: a multiplate brake mechanism 11; a ringlike core member 2 with an annular groove and first tapered surface 25; an annular coil 3 is disposed in the annular groove; a ringlike armature member 9 is arranged radially outside the core member (the armature is radially outside tapered portion 25) and has a second tapered surface 27 that compliments the first tapered surface; a first annular restriction member preventing radial movement of armature (interpreted as the series of pins 5 that are disposed in an annular configuration within the core); a cylindrical pressure member is attached to the armature (the pressure member is interpreted by the examiner as being the brake surface and extensions of the armature illustrated in figure 3).

The pins will prevent radial movement of the armature member and allow only axial movement of the armature, this is consistent with the instant invention.

Re-claims 2, 7, 11 and 13, the core member has a third tapered surface 24 and a fourth tapered surface 26.

Re-claim 4, an elastic means 17 is provided between the core member and the armature member.

Re-claims 5 and 9, an annular brake guide 20 has one end fixed to the core and the other end fixed to a part of the housing.

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Re-claims 6 and 12, Reucker discloses an electromagnetic brake and actuator, comprising: a multiplate brake mechanism 11; a ringlike core member 2 with an annular groove and first tapered surface 25; an annular coil 3 is disposed in the annular groove; a ringlike armature member 9 is arranged radially inside the core member (the armature is radially inside tapered portion 24 of the core) and has a second tapered surface 27 that compliments the first tapered surface 25; a first annular restriction member that prevents radial movement of the armature (interpreted as the series of pins 5 that are disposed in an annular configuration within the core); a cylindrical pressure member is attached to the armature (the pressure member is interpreted by the examiner as being the brake surface and extensions of the armature illustrated in figure 3).

The pins will prevent radial movement of the armature member and allow only axial movement of the armature, this is consistent with the instant invention.

Allowable Subject Matter

9. Claims 3 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Miller, Sekiya et al., Le Blanc, Nekado et al. and Iwazaki et al. each teach an electromagnetic actuator having opposed tapered surfaces.

11. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is (703) 305-1346.

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The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder, can be reached at (703) 308-3421. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

TJW

July 7, 2004

THOMAS WILLIAMS
PATENT EXAMINER

Thomas Williams

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7-7-04